(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 18 January 2001 (18.01.2001)

PCT

(10) International Publication Number WO 01/04309 A1

(51) International Patent Classification?: C12N 15/12, C07K 14/47, A61K 38/17, C12Q 1/68, G01N 33/50, C07K 16/18 (US): WOLFGANG, Curt [US/US]; 11479 Stony Point Pl., Germantown, MD 20876 (US).

(21) International Application Number: PC

PCT/US00/19039

(22) International Filing Date:

12 July 2000 (12.07.2000)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/143,560 60/157,471 3 July 1999 (13.07.1999) US 1 October 1999 (01.10.1999) US

- (71) Applicant (for all designated States except US): THE GOVERNMENT OF THE UNITED STATES OF AMERICA, as represented by THE SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES [US/US]; Bethesda, MD 20892 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): PASTAN, Ira [US/US]; 11710 Beall Mountain Road, Potomac, MD 20854 (US). ESSAND, Magnus [SE/US]; Apartment 629, 3133 Connecticut Avenue, N.W., Washington, DC 20008 (US). LEE, Byungkook [US/US]; 10711 Sandy Landing Road, Potomac, MD 20854 (US). VASMATZIS, George [GR/US]; 2819 4th Avenue, N.W., Rochester, MN 55901

(74) Agents: HYMAN, Laurence, J. et al.; Townsend and Townsend and Crew LLP, 8th Floor, Two Embarcadero Center, San Francisco, CA 94111-3834 (US).

- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, Cl, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

- With international search report.
- Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: T-CELL RECEPTOR Y ALTERNATE READING FRAME PROTEIN, (TARP) AND USES THEREOF

(57) Abstract: This invention provides nucleic acids containing sequences from a TCRγ transcript from prostate epithelial cells and many breast cancer cells and a T-cell receptor gamma Alternate Reading frame Protein ("TARP") expressed from the translation of those sequences. Vaccines made from TARP are useful in raising immune responses to cells in which the protein is expressed, including prostate cancer cells and cells of many breast cancers. The invention also provides methods for diagnosing the presence f prostate cancer and TARP-expressing breast cancers, as well as methods of administering TARP and nucleic acids encoding TARP to subjects.

